



2021 SPRING ECONOMIC FORECAST

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WOODS CENTER FOR ECONOMIC
ANALYSIS AND FORECASTING

THE AFTERMATH PANDEMIC BLUES AND ECONOMIC CLUES: A Post-Pandemic, Post-Election Economic and Real Estate Outlook

THE NATION, SOUTHERN CALIFORNIA AND ORANGE COUNTY

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THE NEW ROARING 20s

“The social season is upon us”
— Lady Whistledown, *Bridgerton*

Overview

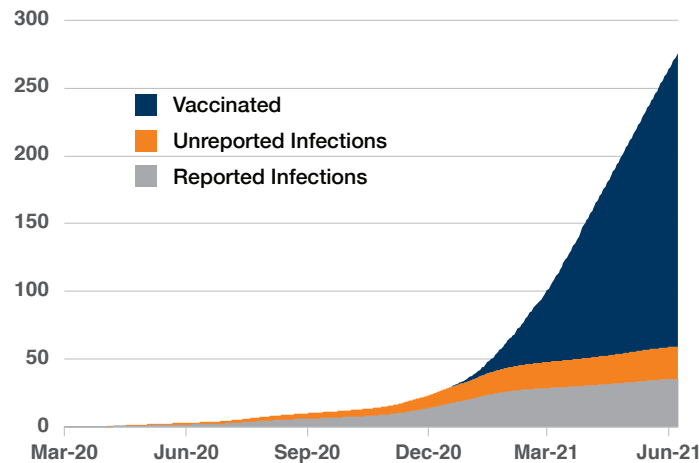
The gods of TV drama have mercifully smiled upon us again this season through *Bridgerton*, a light-hearted, vibrant, gossipy and somewhat raunchy tale set in Regency England. On the face of it, there is nothing inherently original about the series: It has all the trappings of a Regency romance – dashing leading characters, glittery balls, witty yet predictable banter, over-the-top costumes and a good dose of scandal, anonymous rumors and petty jealousies. But herein lies its success: The bright scenery, effervescent colors and unbearably light plot offer precisely the type of escapism we did not know we craved but fervently needed especially during a time when the pandemic raged across the country and a second raft of local and regional lockdowns went into effect. It transported millions (82 million households, to be precise) into a world of pure bliss and fantasy when the world around us was crumbling, plagued by death and destruction both in lives and livelihoods. It was free collective therapy at precisely the right time.

More than a fleeting sense of escapism, *Bridgerton* perfectly symbolizes where the economy is headed, at least in the near term. Bright and airy, free from the shackles of a once-in-a-century pandemic, the economic outlook has never been more upbeat, indeed, almost Pollyannaish. We are not alone in this optimistic assessment: The Federal Reserve has updated its forecasts on the upside numerous times, from 4% in September 2020 to 4.2% in December to a current 6.5%. Rosier projections are expected for the G20 as a whole: The OECD has penciled in a growth rate of 6.2% in 2021 – something last seen in the 1970s. Our own forecast point to a U.S. real GDP growth north of 6% (6.8%, to be precise), a figure that would have made us blush in normal times given how unrealistic it appears. Nonetheless, as hard as it is to believe, it is possible that economic activity in 2021 may exceed even our lofty expectations. For context, we have not seen growth this high since 1984 (the year, not the Orwellian dystopia), when one of the authors of this piece was barely older than a toddler, when Prince rocked to *Purple Rain* and *Footloose* unshackled rock ‘n’ roll in a town of yesteryear.

There are three reasons for such buoyant optimism. First, the virus. Despite some early hiccups, the vaccination campaign in the U.S. has progressed quite rapidly: As of this writing (early April), the U.S. has distributed a total of 207 million doses, of which 103 million (40% of adults) have received one dose and 60 million (23%) have been fully vaccinated. The pace of vaccination has ramped up from roughly 1 million per day

in mid-January to a current 3 million. If all proceeds apace, a conservative estimate would pencil herd immunity (via both infections and vaccines) somewhere between Memorial Day and Independence Day (most likely in early June) (Figure 1).

FIGURE 1
Herd Immunity, Here We Come
(COVID-19 cases and vaccinations, millions, estimate)

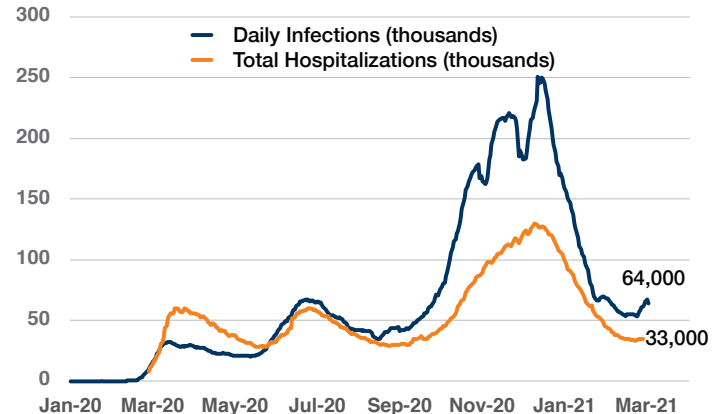


Another heartening development is the trajectory of the virus. After clocking in a jaw-dropping 250,000 daily infections in mid-January (more than eight times higher than March/April 2020 and nearly four times as high as last summer), the case load dropped to around 50,000 per day this March. The numbers have ticked up a bit lately (to a daily rate of 65,000 currently) as many states relax restrictions on economic activity while simultaneously ramping up vaccines.

The recent uptick is certainly cause for concern lest this turns into another surge. However, there are reasons to believe that this time may indeed be different and things may not turn out as tragically as during previous surges. For one, most states have already vaccinated the large majority of the most vulnerable population, those older than 65 and those with pre-existing conditions. Anecdotal evidence points to recent infections skewing more toward young people, whom the virus also tends to harm less. Indeed, though the daily infections have gone up, hospitalization rates have trended down from a high of over 125,000 in mid-January to a current 33,000 – a level last seen in October (Figure 2). ICU stays have also come down from over 30,000 to around 8,300. More encouragingly, the daily mortality rate has declined from a heart-breaking 3,500 to a little below 1,000. These developments paint a

much brighter picture than just a few months ago, and while COVID-19 may be something we may have to live with for a long time, the worst of the crisis seems to be firmly behind us.

FIGURE 2
On the Right Path:
COVID-19 Infections and Hospitalization Have Declined
(thousands of people)



The second reason for a decidedly more optimistic outlook is the unprecedented government response: Lavish amounts of money have been doled out to help households, businesses and the unemployed as governments across the world rushed to impose lockdowns and various restrictions on economic activity while the pandemic ravaged the globe. At least 1,600 new social-protection programs were launched last year worldwide in response to the virus. Over \$25 trillion (24.4% of world GDP) in total emergency funding has been deployed globally, more than six times the amount during the 2008 financial crisis. Almost the entirety of this largesse occurred in advanced economies, with Europe opting for wage subsidies and furlough schemes and the U.S. topping up unemployment benefits and sending stimulus checks. The expansion of the welfare state has been the fastest and largest in living memory, at least since World War II.

In a dramatic break from its past, the U.S. has been at the forefront of these efforts. In a span of a year, Congress passed six successive bills aimed at shoring up the economy, shoveling funds everywhere from households to businesses to state and local governments. First, came the Coronavirus Preparedness Act (\$8.3 billion), followed in succession by the Families First Act (\$192 billion), the CARES Act (\$2.3 trillion), the PPP Act (\$483 billion), the Consolidated Appropriation Act (\$868 billion) and the American Rescue Plan (\$1.9 trillion). All told, the fiscal support comes up to a jaw-dropping \$6 trillion or roughly 26% of GDP (Table 1).

TABLE 1
Fiscal Stimulus Galore

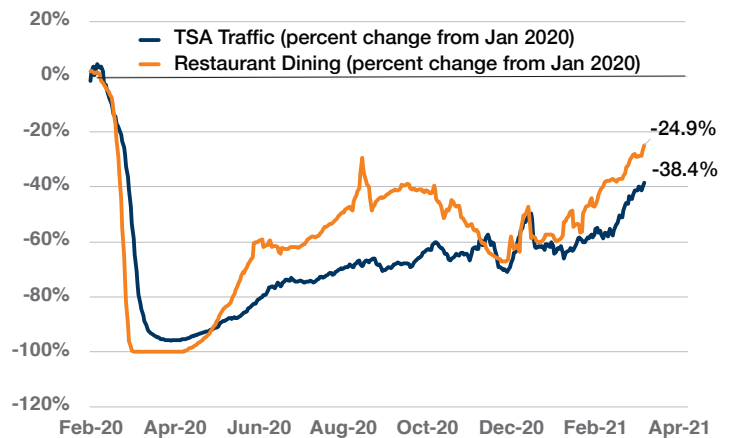
Plan	Amount (billions of dollars)	% of GDP
Coronavirus Preparedness Act	\$8.3	0.04%
Families First Act	\$192	0.8%
CARES Act	\$2,300	9.4%
PPP Act	\$483	2.2%
Consolidated Appropriation Act	\$900	4.2%
America Rescue Plan	\$1,900	8.8%
TOTAL	\$5,783.3	25.5%

The Federal Reserve (Fed) has embarked on an equally herculean task to bolster economic growth. It stood behind money markets, calmed investor nerves, breathed life into the corporate bond market and extended \$2.3 trillion in loans to households, businesses big and small, and state and local governments. At the height of the pandemic, one did get the impression that there was hardly anyone to whom the Fed would not lend. Its balance sheet has swollen by \$3.5 trillion since February 2020, as the Fed gobbled up massive amounts of Treasury bonds and mortgage-backed securities. But perhaps the most dramatic change came in the form of a sweeping rewrite to its dual mandate of maximum employment and stable inflation, with the Fed aiming to target “average inflation of 2%” and address “shortfalls” in “broad-based and inclusive job growth.” This landmark shift is nothing short of revolutionary, enshrining a higher degree of tolerance for inflation, thus allowing the Fed to follow a more reflationary policy in pursuit of higher levels of employment.

Combined, the fiscal and monetary rescue packages in the U.S. come to around \$10 trillion, comprising a mind-boggling 46% of real GDP growth, the largest in the postwar era. It far exceeds other countries’ efforts, which though quite generous, appear puny by comparison: Japan’s response (both fiscal and monetary) amounts to around 30% of GDP; Great Britain’s efforts come to around 22%, while Germany and Canada have supported their economies to the tune of 20% of their respective GDPs.

This brings us to the third reason for a rosier outlook: A resilient recovery propped up by unprecedented government support and propelled by an imminent reopening is on the cusp of an extraordinary boom. Signs of spring are everywhere: Airport traffic, though still 38% below normal levels, has risen by nearly 100% since the start of the year; seated diners are now only 25% below historical trends compared to -60% back in January; and Google mobility data shows the highest activity in retail and other recreational places since the pandemic began (Figure 3).

FIGURE 3
Signs of Life: Travel and Restaurants are Perking Up
(TSA foot traffic; open table dining; percent change from Jan. 2020)



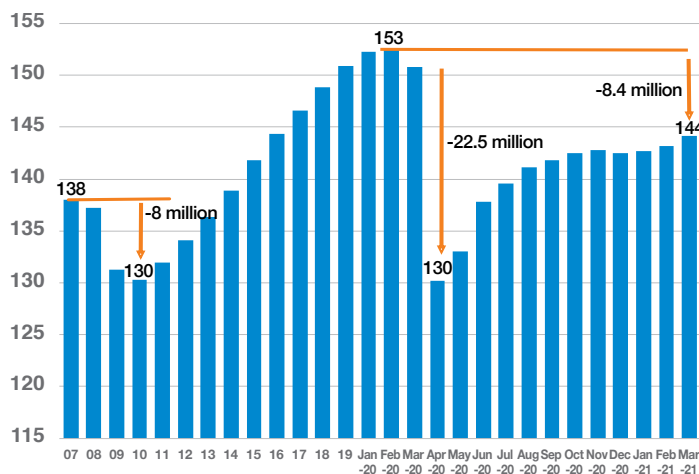
The world’s consumers are sitting on a pile of unspent cash – \$3.6 trillion of excess savings, to be precise – which has been accumulated partly due to generous government programs and partly due to lack of spending opportunities as businesses shut down and the globe went dark. U.S. consumers alone have amassed excess savings in the amount of \$1.4 trillion, which is bound to increase further (to roughly \$1.8 trillion) with the disbursement of the latest COVID stimulus checks.

Unlike past recessions and recoveries, poor households have fared better over this past year: The poorest households’ bank balances were 40% higher in December 2020 than at the end of 2019, whereas those of wealthy households had grown by 25%. The bottom half of the income distribution has seen its liquid assets rise by 11% over the past year, nearly twice as much as those in the top 1%. Overall, household wealth has skyrocketed to an unprecedented \$130 trillion fueled both by an increase in home prices and a stellar performance in the stock market. This fire power is about to be unleashed in earnest as vaccine distribution ramps up and the economy reopens. In the words of *Bridgerton*: “The social season is upon us.”

Other segments of the economy are either about to break free or post additional gains on top of an already strong performance. The labor market, a perennial laggard in any recovery, has perked up lately, adding an eye-popping 916,000 jobs in March on top of 468,000 recorded in February. The average pace of job formation has firmed up to 539,000 over the past three months, more than double the 231,000 rate posted in the last three months of 2020 (Figure 4). The housing market has been on a tear ever since the strict lockdowns of last spring came to an end: Home sales skyrocketed to levels last seen 15 years ago during the heyday of the housing boom. Home prices rose by 11.2% – the fastest since 2005, and housing permits are a staggering 20% higher than their pre-pandemic level.

An industrial renaissance is in the offing as factory production ramps up and capital spending picks up steam. Indeed, capital spending on core goods is up nearly 10% relative to pre-pandemic. A full 90% of manufacturers are optimistic about their business outlook over the next 12 months according to the National Association of Manufacturers, the highest in more than two years.

FIGURE 4
Still Some Ways to Go: Labor Market...Mending...
But Still Far Below Pre-Pandemic
(nonfarm payrolls, millions)

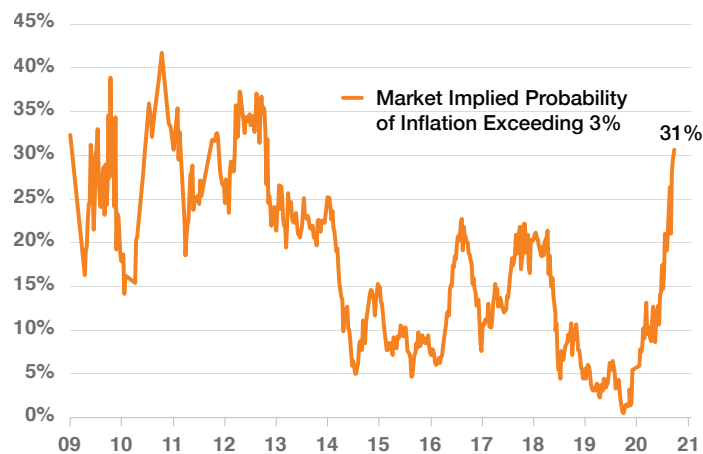


But even as the economy is poised to sail into a balmy spring, risks are rising, perhaps even more so than in a garden-variety recession/recovery cycle. That's because this is not your normal boom/bust cycle brought on by the usual suspects (debt overhang, monetary/fiscal tightening) but rather a crisis borne out of a global pandemic. The virus has proven quite treacherous and hard to predict, and the economic outlook continues to remain firmly in the clutches of the disease. Despite a ramp-up in vaccine rollout, infections have risen over the past few weeks in 33 states. In some, such as Michigan, Florida, New York and New Jersey, the average daily infections exceed 5,000— a cause for concern. The virus has engulfed much of continental Europe, prompting a third lockdown even as Europe continues to lag in its vaccination efforts.

Moreover, the emergence of new variants has brought on fresh doubts about vaccine efficacy. The B.1.1.7 strain (colloquially known as the UK variant), thought to be more infectious, accounts for the vast majority of new infections over the past four weeks both in Europe and the U.S. Studies show that existing vaccines, while not as effective against this variant as against the wild-type, continue to offer some protection against it. The same cannot be said about the B.1.351 strain (the South African variant). Vaccine hesitancy is another hurdle in the campaign to inoculate the globe.

These downside virus-related risks notwithstanding, risks to the upside are perhaps even more threatening to the long-term path of this recovery. Massive amounts of excess liquidity sloshing around in the system and a vaccine-induced reopening have ignited fears that the economy will soon be doomed to suffer either a surge in inflation or the crushing consequences of higher rates. Market expectations of inflation are the highest since 2009, and inflation premiums have risen. The market-implied probability of inflation exceeding 3% over the next five years has shot up to over 30%, the highest since 2012 (Figure 5). Money supply growth has risen by an unprecedented 25% (year-over-year) over the past three months while excess bank deposits have swollen by \$2.4 trillion. Some of this money has ended up in the dark corners of the investment world, into special purpose acquisition companies (SPACs) and things that are not subject to laws of gravity such as cryptocurrencies and non-fungible tokens. GameStop and other meme stocks are a vivid reminder as to what can go wrong when investor frenzy goes into overdrive fueled by too much liquidity and too little concern for excessive risk-taking.

FIGURE 5
Heating Up: Inflation Expectations at Decade-High
(option implied probability of inflation exceeding 3% over next 5 years)



The medium- to long-term path is also strewn with all sorts of policy risks. A bout of persistent inflation may cause the Fed to tighten sooner than it expects, thus snuffing out the nascent recovery. Treasury yields have been raising alarm bells over the past couple of months to this effect: The 10-year note currently stands more than one percentage point above year-ago levels. And though it has become quite unfashionable lately to fret about public debt, it is worth remembering that last year the budget deficit exceeded \$3 trillion, accounting for nearly 15% of GDP, the highest since 1945. Though interest rates have been at rock-bottom, which means that servicing the debt has

never been cheaper, interest payment on the debt was \$375 in 2019 (pre-pandemic), higher than what the federal government spent that year on education, transportation, veterans affairs and health combined.

Our view is that while these risks are considerably higher now than at any point in the past, they are unlikely to materialize in the near term, at least not in the current year. Inflation is certainly the biggest risk, but with 8.4 million workers unemployed and an additional 3.5 million sidelined from the labor market, there is ample slack to cushion near-term inflationary pressures. Interest on the debt due to persistent budget deficits will gobble up an ever-increasing share of federal spending but more so in 2023 and beyond rather than in the immediate setting. There is one area where we are extremely cautious: If our baseline outlook of an unprecedented boom materializes in its full effect, we anticipate that the Fed will begin tapering its bond-purchases early next year and start hiking rates by the end of 2022, much sooner than what the Fed officials have currently penciled in.

A year ago, the quarantined world was transfixed by *Tiger King* and its bizarre, twisted, eccentric cast of characters and its part-voyeuristic, part horrific plot entirely detached from reality. Now, *Tiger King* has been dethroned, and another equally fantastic but feel-good show, *Bridgerton*, has taken over. That in itself, constitutes important progress. In the words of *Bridgerton*: "If you desire the sun and the moon, all you have to do is go out and shoot at the sky." After a year of sacrifices and despair, it is finally time for all of us to go out and shoot at the sky. Welcome to the new Roaring 20s!

Swabs and Jabs: The State of the Pandemic One Year In

"All is fair in love and war"
- Lady Whistledown, *Bridgerton*

TABLE 2
Vaccine Efficacy

	Moderna	Pfizer	Johnson & Johnson	AstraZeneca	Novavax
Efficacy against prevailing type	94% (100% severe cases)	95% (100% severe cases)	72% (86% severe cases)	76% (100% severe cases)	95.6% (100% severe cases)
Efficacy against B.1.1.7 (UK variant)	Modest decline	Modest decline	Modest decline	75%	90%
Efficacy against B.351 (South African variant)	6 times decline in neutralization	6 times decline in neutralization	64% (82% severe cases)	10%	60%
Efficacy against P.1 (Brazilian variant)	2 times decline in neutralization	3 times decline in neutralization	?	3 times decline in neutralization	?

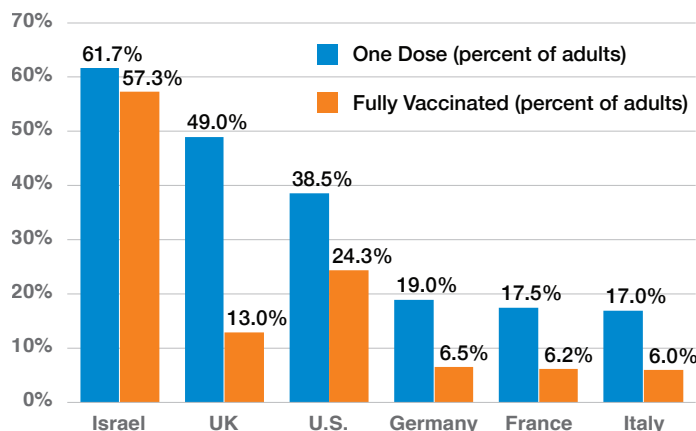
Since the pandemic struck a bit over one year ago, the world has suffered more than 130 million infections and 2.8 million deaths, the highest since the Spanish flu a century ago, which is estimated to have claimed around 50 million souls. So far, the U.S. accounts for a bit less than a quarter of infections (30 million) and a tad less than one-fifth of deaths (556,000). The disease has hit humanity in waves: The U.S. has undergone three distinct spikes of infections and deaths, one more devastating than the next. Europe is currently in the throes of a third wave. And while U.S. infections declined meaningfully from mid-February to mid-March, they have risen slightly in recent weeks from an average of 53,000 daily infections to around 65,000 as of this writing. By contrast, daily infections have reached a nerve-wracking pace of roughly 170,000 in the EU.

This is certainly worrisome and a stark reminder that coronavirus may not be finished with humanity yet. Worse, it may circulate for years and become endemic. Treating it as a transient emergency that can be kept at bay by bolting doors and shutting down economic and social activity is unsustainable in the long run. Months-long national lockdowns and endless school closures are not only devastatingly pricey in terms of economic costs but also impossible to maintain for lengthy periods of time. The next few years will likely be characterized by some adjustments to living with COVID-19 in both our private and public lives.

Mercifully, things are not as dire as they sound, thanks to the vaccines that have arrived much sooner than many of us dared to hope. They are nothing short of a miracle: surprisingly effective against the prevailing wild-type and easy to manufacture. As of early April, the global production of vaccines reached nearly 1 billion. The efficacy of Moderna, Pfizer (both approved in the U.S.) and Novavax is higher than 95%; Astra-Zeneca's efficacy is around 76%; Johnson & Johnson's (also approved in the U.S.) is 72%. All are estimated to be 100% effective against severe infections, hospitalizations and deaths, which is what really matters. Post-vaccination, "living with COVID" may simply mean receiving regular booster shots tweaked to deal with the new variants (Table 2).

But now that vaccines are here, the next big challenge is their distribution and administration. No one ever thought that inoculating the globe would be easy, and there is no surprise that some countries have performed far better than others. Leading the pack is Israel, which has managed to vaccinate 62% of its population with at least one dose (58% have received both). Britain has also been quite successful, taking a different approach than other countries which hinges on aiming to provide as many as possible with the first dose of the vaccine, circling back to the second dose later. So far, it has vaccinated nearly 50% of its population with the first jab but only 13% with both doses. By contrast, the European Union had badly mangled the vaccine rollout having inoculated only 18% of its population with less than 7% being fully vaccinated. A full accounting of the EU's struggles on this front would take pages, but technocratic roadblocks, regulatory over-zeal, and a sudden and ill-placed desire for penny-pinching float at the top (Figure 6).

FIGURE 6
Vaccinating the World Is Not Easy: U.S. Has Fared Well
(percent of adults vaccinated with one or two shots)



After a somewhat rocky start, the U.S. has handled the pace of vaccinations quite masterfully. Daily jabs have risen from 1.2 million at the end of January to a current 3 million. As of this writing, a total of 207 million vaccines have been distributed with over 161 million administered. A total of 103 million people (40% of adults) have received at least one dose, with nearly 60 million (23%) receiving both. The figures for those over 65 are even more heartening, with 75% receiving one dose and 55% being fully vaccinated. At the current pace, herd immunity will be reached around early June, with around 39 million recorded cases, an additional 28 million unreported and the rest (roughly around 180 million) receiving vaccines.

When all is said and done, even these estimates may end up being a bit too cautious: Soon the biggest constraint may no longer be vaccine supply but vaccine hesitancy. By the end

of March, 16 states had secured enough so any adult (older than 16) may sign up for a jab. By mid-April, an additional 22 states – including California, Illinois and New York – will do so. Some states have fared better than others: New Mexico, New Hampshire and Connecticut lead the pack with roughly 40% of their residents receiving one dose. Georgia, Alabama and Mississippi have lagged behind with roughly a quarter of their population getting the first jab. After a dismal early start, California has ramped up its vaccination efforts, immunizing 32% of its population with one dose and 16% with both, ranking in the middle of the pack.

Despite this good news, the battle against COVID is not won, at least not yet. For starters, immunizing the entire world is a herculean task that will take years. 85% of countries have yet to embark on their vaccination efforts. As time passes, the potency of the vaccine will likely fade, which means boosters will be necessary. More importantly, the emergence of new variants has complicated the fight as well as the vaccine efficacy. The B.1.1.7 variant, first discovered in the UK, is estimated to be 25%-40% more infectious than the prevalent wild-type. The B.1.351 strain, first identified in South Africa, is linked to higher amounts of virus in humans and appears to be more resistant to the antibodies developed against the wild-type, which raises concerns about reinfections. The P.1 variant found in Brazil appears to be both more contagious and able to reinfect humans. As of this writing, the B.1.1.7 strain made up 63% of new infections over the past month in the U.S., with the B.1.351 and P.1 accounting for 0.3% and 0.5% of infections, respectively.

The vaccine efficacy against these new variants varies. Most have performed quite well against the UK strain: Pfizer shows only a modest decline in effectiveness; AstraZeneca offers a 75% protection while Novavax has proven around 90% effective. A different story emerges against the other strains: The Johnson & Johnson vaccine has an efficacy rate of 64% against the South African variant; Novavax's is around 60%. Other vaccines perform worse with Moderna and Pfizer showing a decline of around six times in neutralization and AstraZeneca showing an efficacy rate of around 10%. Vaccine makers have begun research on adaptations and boosters to deal with the new variants. Moderna is working on a booster against the B.351 that would work well with other vaccines; Pfizer has committed to create its first booster in six weeks.

The good news is that boosters are less expensive and less time-consuming than original vaccines: They can be carried out in smaller scale trials instead of the massive phase-3 trials necessary for first vaccines. No matter what, the global battle against COVID will continue, at least for the foreseeable future.

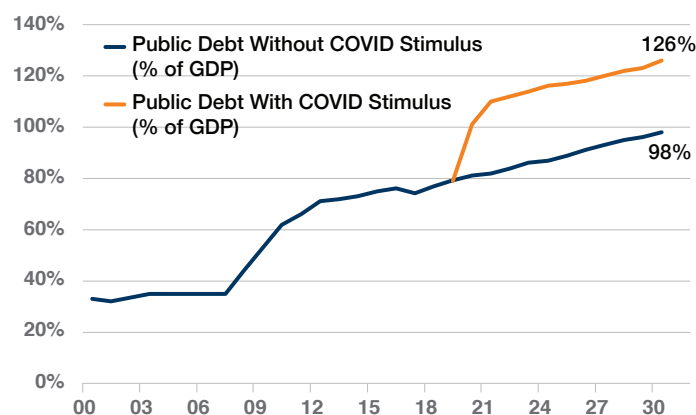
Leviathan Inc.: The Era of Big Government is Back

"Why settle for a duke when one can have a prince?"
- Lady Whistledown, *Bridgerton*

The American political class has decided it no longer needs to settle for a duke when it can have a prince. Gone are the days of handwringing about the size of the fiscal stimulus, agonizing over penny-pinching schemes or obligatory throat-clearing on how to pay for spending. Over the course of one year, since the pandemic hit, the U.S. has spent an unapologetic \$6 trillion (26% of GDP), the largest in the postwar era, all through deficit financing. By comparison, the \$787 billion (5.3% of GDP) American Recovery and Reinvestment Act (ARRA) passed at the height of the 2008 financial crisis appears puny.

More than the size of the fiscal rescue, a paradigm shift appears to be underfoot. The \$1.9 trillion American Rescue Plan (ARP), the latest in a raft of mammoth bills, has wide support: Two-thirds of the public approves of it. At a time when the national debt has ballooned to over \$27 trillion (130% of GDP) and debt held by the public has grown to a dizzying \$21 trillion (100% of GDP), only 3% of the public worries about debts and deficits (Figure 7). In contrast, in 1996, when public debt stood at only 47% of GDP, the vast majority of Americans considered debts and deficits the biggest challenge facing the nation. It is hard to overstate how unimportant debt has become: Fiscal hawks amongst the public and the political class appear to be all but extinct.

FIGURE 7
Up and Away: Public Debt has Skyrocketed
(public debt as percent of GDP)



The shape of the welfare state that arose over the past 25 years, since President Clinton declared that “the era of big government is over,” has also changed radically. In a rush to support businesses and households amidst a growing crisis, governments across the world gleefully tossed aside established principles such as means-testing (help only to the neediest), social insurance (support for those who paid in) and work incentives (money for job-seekers). Some of these were impossible to maintain given the unusual nature of the crisis: After all, it is hard to look for a job when the government has ordered most businesses closed. Sending quasi-blank checks to virtually everyone is also much speedier than going through the cumbersome process of strict means-testing. If these efforts were confined to the uniqueness of the pandemic, no one would gripe. But there is an earnest push to make some of these crisis-era policies permanent.

Some also argue in favor of making them more generous. Thanks to enhanced unemployment benefits put in place by the gargantuan CARES Act last year, seven out of 10 unemployed Americans earned more during the April-July 2020 period than while working; one-fifth earned double their normal income. The pandemic has lent fresh interest to the idea of universal basic income (UBI) – a minimum income for all residents, generally speaking, with no strings attached. Democrats and some Republicans have shown support for expanded child tax credit (a feature of the ARP), which is essentially a no-string-attached welfare scheme for families with children. But for a parliamentary fluke, the \$15 minimum wage included in the ARP would have passed.

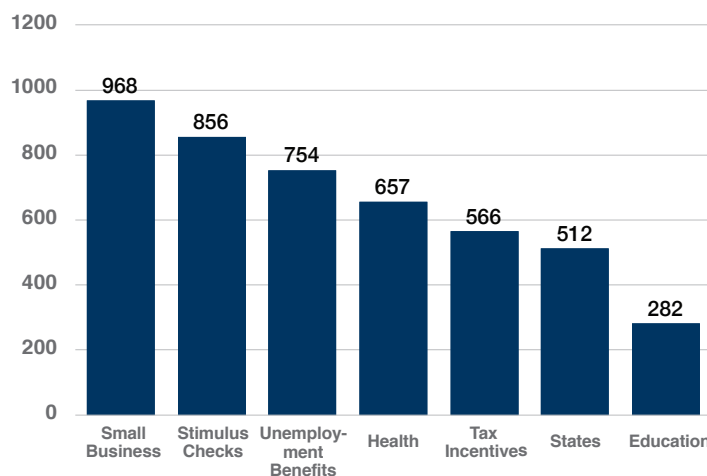
This paradigm shift towards a more active government is not entirely surprising. Crises and wars tend to redraw the relationship between the government and the governed. Big, bold welfare programs are typically forged during hard times (the Great Depression, world wars, etc.). It also helps that low interest rates have made it much easier to service the debt: As interest rates plumbed new depths last year, interest payment on the debt dropped to \$344 billion from \$375 billion a year earlier.

However, the pandemic seems to be a poor excuse to launch a permanent expansion of the welfare state. While tragic in terms of lost lives and seismic in terms of economic costs, its impact is rather transitory, much like the Spanish flu, which ushered in the era of the Roaring 20s. There was nothing fundamentally wrong with the economy pre-pandemic: There were no massive debt overhangs, no glaring misallocation of resources and no obvious credit bubble. In contrast, the Great Recession was plagued by all of this and more, leaving far more permanent scars in the economy than this pandemic ever will.

If you get the impression that the government is fighting the last war, you would not be alone. Having done far too little during the Great Recession, there is no doubt the government is doing far too much now. Take for example the latest bill, the ARP, which sailed through Congress in early March. Without it, U.S. GDP was estimated to lag behind its potential by only 1.3% at the end of this year. The \$1.9 trillion price tag of the ARP is six times bigger than that shortfall. With it, real GDP is estimated to reach its potential by the third quarter of this year. The bill earmarks \$411 billion in direct payments to individuals, \$362 billion for state and local governments, \$203 billion in unemployment benefits, \$176 billion in tax incentives, \$174 billion in various health-related spending, \$170 billion for education and an additional \$302 billion in various other programs.

All told, the six rounds of federal support that were signed into law since the pandemic began break down as follows: The lion's share – a full \$968 billion was earmarked to support small businesses, followed by \$856 billion in stimulus checks, \$754 billion for expanded unemployment benefits, \$657 billion for health and related spending, \$566 billion in tax incentives, \$512 billion in direct aid to state and local governments, \$282 billion for education, and an additional \$730 billion in other programs (Figure 8).

FIGURE 8
A Boatload of Money: The Breakdown of
Nearly \$6 Trillion COVID Relief
(billions of dollars)



The aid to states and local governments seems particularly overdone. The combined state and local government budget shortfall over the next year is likely in the ballpark of \$85 billion, far short of the \$512 billion they have received through federal aid. Much of this has to do with the fact that state revenues have

fared much better than originally feared thanks to the generous federal support to households and businesses, a stellar performance in equity and housing markets, and a resilient recovery. From March to December 2020, state revenues fell by a combined 1.8%, much less than the original 8% expected at the height of the crisis (and certainly much less than the 20% projected by some states). Twenty states have seen increases in revenues, including six states where revenues rose by more than 3%. California is projecting a budget surplus to the tune of \$15 billion, a remarkable turn-around from the \$54 billion shortfall it predicted just nine months ago. Things are so rosy that state and local governments have only spent 64% of the \$150 billion of federal support they were allocated through the CARES Act more than one year ago. They still have an additional \$82 billion in unspent education grants they received through the Consolidated Appropriation Act passed last December. Another \$362 billion is now headed their way, thanks to the ARP.

If you think the government bonanza is over, think again. The Biden Administration has proposed the first leg of its pan-infrastructure plan, which is partly based on old-fashioned infrastructure (overhauling roads, bridges and broadband) and partly on newfangled initiatives aimed at propelling the country towards a greener future. Named the American Jobs Plan (AJP), with a price tag of \$2.25 trillion over eight years, the proposal includes a total of \$612 billion on transportation infrastructure (roads, bridges, electric vehicles), \$400 billion in care homes for the elderly, \$300 billion in manufacturing, \$213 billion in clean energy R&D, \$208 billion to retrofit/weatherize buildings, \$137 billion in education and child care, \$111 billion in water infrastructure, and \$300 billion (\$100 billion each) in broadband, workforce training and power infrastructure. A second leg focusing on “social infrastructure” (such as free community college, universal pre-K and paid family leave) to the tune of \$1-\$2 trillion is rumored to be in the works, though the details and the timeline for its unveiling remain a mystery.

Unlike the previous rounds of COVID relief, which were entirely deficit-financed, the latest infrastructure plan lays out a framework on how to pay for this massive spending. Specifically, the proposal calls for raising the corporate tax rate to 28% from 21%, introducing a 15% minimum tax on corporations “book income” and increasing the global minimum tax on foreign earnings to 21% from a current 10.5%. A rough estimate shows that the combined effect of all these changes will likely raise around \$1.3 trillion in revenue over the next 10 years, falling short of the \$2.25 trillion price tag of the proposal. The second social infrastructure bill will likely be financed with tax hikes on the personal income side, most likely by raising marginal rates

on the top earners and taxing capital gains as ordinary income. However, as much of that plan is still unknown, it is too soon to draw any definite conclusions about its long-term effects.

Post pandemic, the world has changed in many ways. Some of these changes are transitory and some more permanent. Unquestionably, the pandemic has redrawn the relationship between the state and its citizens, demanding a more expansive role of the former. Make no mistake about it: The era of big government is back!

The New Roaring 20s

"If you desire the sun and the moon, all you have to do is go out and shoot at the sky."

- Bridgerton

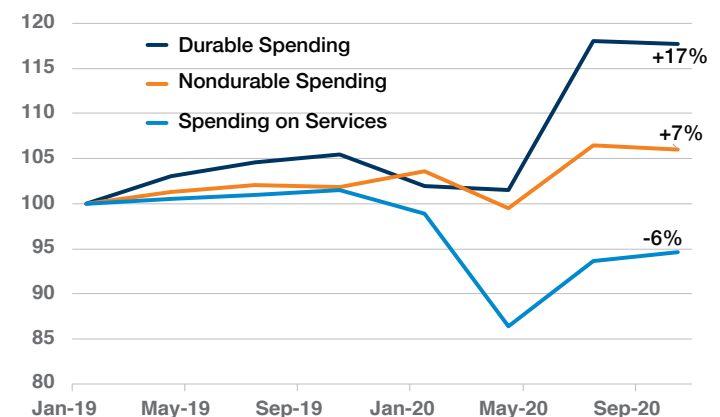
A year ago, a once-in-a-century pandemic shut down the globe, consigning life and economic activity to levels unseen in modern times. In the first two quarters of last year, real GDP fell by a jaw-dropping 10.4%, the largest decline since 1946. From March to the end of April 2020, a total of 22.3 million jobs were lost, and nearly 8 million exited the labor force. The unemployment rate shot up to 14.8%, the highest since the Great Depression, with the broader U-6 measure (which accounts for discouraged and marginally attached workers) reaching a terrifying 22.9%.

Since then, an uneven and, at times, half-hearted recovery has ensued, one that has proceeded in fits and starts largely dictated by the whims of the virus. Real GDP grew by a blockbuster 33.4% in Q3 as the economy reopened in late spring only to limp at a 4.3% growth in Q4 as the virus spread across the nation. The labor market added nearly 11 million jobs from May to August 2020, but the pace of job-formation downshifted significantly with only 1.3 million jobs gained in the last four months of the year. A full 306,000 jobs were lost in December 2020 when a second round of lockdowns and business closures went into effect. As we anticipated, the summer and winter virus surges did not derail the recovery, but they did manage to turn what would have otherwise been a remarkably strong rebound into a wimpier and long-drawn out affair.

Perhaps one of the most defining features of this recession and recovery cycle is its decidedly uneven and lopsided nature. To be fair, every recession/recovery boom/bust is uneven, but none as starkly as the one brought on by the pandemic. For the service sector, it has been a year of pain and struggle; for goods, especially durable goods, it has been the best year since mid-1990s. Indeed, real spending on durable goods

grew by 12% last year, whereas spending in services ended the year still nearly 7% below its 2019 peak (Figure 9). Jobs in the leisure and hospitality sector fell by nearly 50% when the pandemic first struck, but even a year after, they are still around 18% below pre-pandemic levels. Employment in financial activities, by contrast, has fully closed the gap. One year later, small business revenues in the leisure and hospitality sector and food and accommodation are still 52% and 54% below pre-pandemic, respectively, while revenues for professional and business services fall short only by 9%.

FIGURE 9
A Lopsided Recovery:
Durable Spending High While Services Languish
(real spending, index, Jan. 2019=100)



Other pathologies abound. Women have fared far worse than men throughout the recovery: Labor force participation rate dropped by around two percentage points among men, but it fell by a full three percentage points for women. Labor force participation rate for parents with young children is now a full four percentage points below pre-pandemic, but it is only 0.4 points below for those without young children. The housing market has seen a banner year with home prices defying gravity and ending the year up 11%, while prices for commercial property have shed around 6% from year-ago levels.

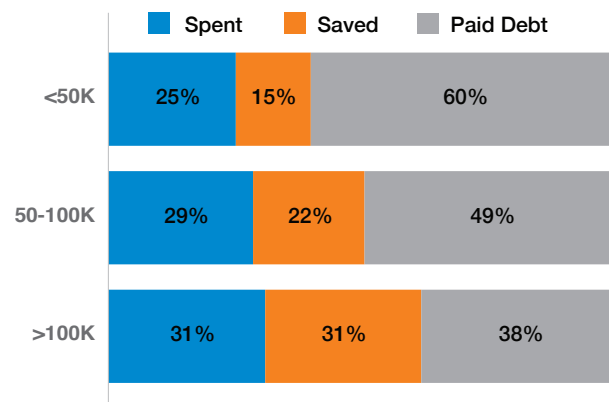
The pain is also not doled out evenly within the commercial sector: While delinquency rates for commercial mortgage-backed securities (CMBS) have skyrocketed to 20% for hotels and 11% for retail space, they have edged down to the lowest level in decades (1%) for industrial space. Asking rents for downtown apartments have weakened considerably (down 7% from pre-pandemic peaks) while rents in the suburbs rose about 1% over the year.

The good news is that much of this doom and gloom is firmly behind us. Our view is that the economy is on the cusp of an unprecedented boom, buoyed by a vaccine-led reopening, lavish government support and strong fundamentals. For all the terrifying destruction the virus heaped on the economy, its worst impact was mercifully short, lasting only six weeks and ending when the iron grip of the lockdowns was loosened last May. Fourth quarter real GDP (latest available data) is within a hair of its pre-pandemic level – down only 2.3%, having fallen by more than 10% in the dark days of the crisis. The first quarter estimate according to the Atlanta Fed now-casting model (which is based on high-frequency data) stands at a healthy 6%, even though the first quarter was marred by a titanic-sized wave of COVID-19 infections. By our calculations, U.S. real GDP will reach pre-pandemic heights in the second quarter of 2021 and exceed its potential by the fourth.

At the core of this wildly optimistic outlook are U.S. consumers. Having braved the worst of the pandemic with admirable grit, as spring dawns, they seem poised to shed their pajamas, eschew endless zoom sessions and once again join the world. There has never been a better time to do so. Their balance sheets are rock solid: Household wealth has soared by an eye-watering \$18 trillion dollars since the dark days of the pandemic, rising to an unprecedented \$130 trillion. Much of this has to do with the meteoric rise in financial wealth as the performance of the stock market shattered expectations after it became clear that unprecedented government support would be in the offing. But quite a sizable chunk – \$1.3 trillion, to be precise – came from home equity wealth.

Consumer balance sheets continue to remain pristine: Mortgage delinquencies remain at decade-lows, in part because the housing market has performed remarkably well during this crisis and in part due to the mortgage foreclosure moratorium, which has been in effect for over a year now. Student loan delinquencies have nose-dived in large part due to the student loan debt-forgiveness program put in place at the height of the pandemic. The Census Bureau Household Pulse Survey shows that 60% of households earning less than \$50,000 per year have used their stimulus checks to pay down debt while 50% of households earning between \$50,000 and \$100,000 have done so (Figure 10). The most problematic corner of consumer finances appears to be in auto loans: Delinquencies for the most vulnerable subprime part of this market have edged up over the past six months to 10.1% from 8.7% a year earlier. However, the slice of this market is relatively small – around \$200 billion – too miniscule to become a systemic issue that would sink the financial sector.

FIGURE 10
How Stimulus Checks Were Used
(percent of households in each income bracket)



The housing sector has been nothing short of extraordinary. Existing home sales roared back after a brief pandemic slump, rising to 6.7 million (annualized), the highest since 2006. The high demand was fueled both by an increased interest in working from home and by ultra-low mortgage rates. The pace of sales has squeezed inventories to a historic low with the supply of single-family homes on the market lasting only 1.9 months, the lowest in 38 years since records began. There are now more real estate agents than homes for sale, a sign that the current run-up in home prices is unlikely to abate soon. Home construction has ramped up to 1.5 million (annualized pace), significantly above the 934,000 recorded at the height of the pandemic, and housing permits indicate that residential construction will add meaningfully to economic activity this year.

The recent rise in mortgage rates has taken the bloom off of the housing market rally a bit, but this was both expected and welcome as the market could likely do with a breather. This will allow the supply chain disruptions (lumber, materials) to catch up with increased construction demand. As schools reopen and more people return to work, the demand for more spacious homes with more amenities will also likely abate a bit. Nonetheless, we do expect home sales to pick up more robustly this spring/summer season and for home price appreciation to continue, albeit at a slightly slower clip, rising by 6.2% this year and 5.5% next year.

Business investments in equipment grew by an astounding 68% in the third quarter and 25% in the fourth. These figures are so dramatic they appear to have been jotted down by mistake. But they are real and will continue to propel the recovery forward. Investments in intellectual property also grew by a healthy 8.2% in Q3 and a robust 10.1% in Q4.

By contrast, investment in nonresidential structures has collapsed by 16% since the start of the pandemic, due in large part to troubles in the energy sector as oil demand slumped across the world. The Baker Hughes rig count plunged new depths, shrinking by nearly three-quarters mid-summer before stabilizing and rising from rock-bottom levels.

Corporate earnings have also fared far better than feared mid-pandemic. When the dust settled, earnings in four out of five big firms beat projections; all told the aggregate earnings exceeded estimates by almost 17%. For all of 2020, S&P 500 companies have reported an earnings decline of 11.2% and a fall in revenue of 0.8%, far less than the 18% and 2.9% figures that were forecasted a year ago. Business sentiment is also much improved: A full two thirds of corporate CEOs rank their firm's outlook over this year as "very good" or "excellent"; a full three quarters expect profits and revenues to grow this year.

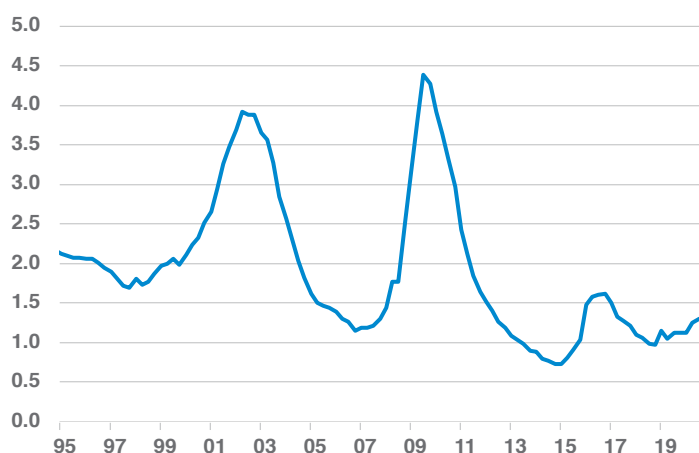
The banking sector is also in solid shape. U.S. banks hold around \$2 trillion of core capital in their balance sheets, almost double the amount in 2007. This constitutes a hefty 12% of risk-adjusted assets. When stress-tested for the worst-case scenario dreamt up by the Federal Reserve, capital core falls a bit but remains at a still-chunky 10%. Commercial loan delinquencies have risen slightly from 1.1% in 2019 to 1.3% at the end of 2020, but the rise is so miniscule compared to the nearly 5% rate during the Great Recession – one would need to squint hard to catch the increase (Figure 11). In September 2020, JPMorgan Chase had braced for a full \$33.6 billion of its \$1trillion loan book to go delinquent. By the end of December, a little under \$1.1 billion did. Banks are so awash with spare cash thanks to

the vast amount of liquidity injected by the Fed (excess deposits have skyrocketed to \$2.4 trillion) that they are turning depositors away to prevent the triggering of additional capital requirements.

The job market, a perennial laggard in any recovery, will likely be the last segment of the economy to fully heal. But it is well on its way to a complete rebound: Job openings are only a tad below their 2019 levels when the labor market was running white-hot, and the pace of job formation has risen dramatically over the past two months. However, a few supply-side constraints may delay for a bit a full labor market recovery. Generous unemployment benefits which have been extended until the first week of September may incentivize those in the margin to hold off looking for jobs. Some continue to be fearful of the virus despite vaccines. Despite these issues, we do expect the labor market to add around 550,000 jobs per month this year and reach its pre-pandemic peak by the third quarter of 2022.

More importantly, an uneven and lopsided recovery is slowly becoming more inclusive and broad-based. The March labor report seems to indicate that the gap in labor force participation rates between men and women has closed as schools reopen and family responsibilities related to COVID-19 become less binding. As vaccinations ramp up, the leisure and hospitality sector has begun to show signs of life: The sector added a total of 280,000 jobs in March (the most of any sector), following a blockbuster 355,000 jobs in February. Hotel occupancy has nudged up and is expected to improve further as the percentage of households who plan to travel in the next six months has risen from 60% (back in February) to 87%. The market has already priced in a strong rebound due in large part to pent-up demand: The Baird/STR Hotel Stock Index jumped by 22% in February vastly outperforming the broader S&P500 index.

FIGURE 11
Business Loan Delinquencies Remain Low
(commercial loan delinquencies, percent)



The economic outlook has never been this upbeat. A year of tragedy, heartbreak and economic collapse is, at long last, being replaced by much brighter times ahead. Yes, risks are on the rise: The economy may overheat; the Fed may be forced to tighten sooner-than anticipated, and gaping budget deficits will be with us as far as the eye can see. These issues will need to be confronted, but thankfully there is a bit of time until they become truly menacing. In the meantime, let's leave our quarantine spaces, gear up for some summer and bask in the sun! In the words of Bridgerton: "You are a *Bridgerton*: You can do anything." Let's all become Bridgertons, even if it is just for a little while.

ORANGE COUNTY AND SOUTHERN CALIFORNIA OUTLOOK

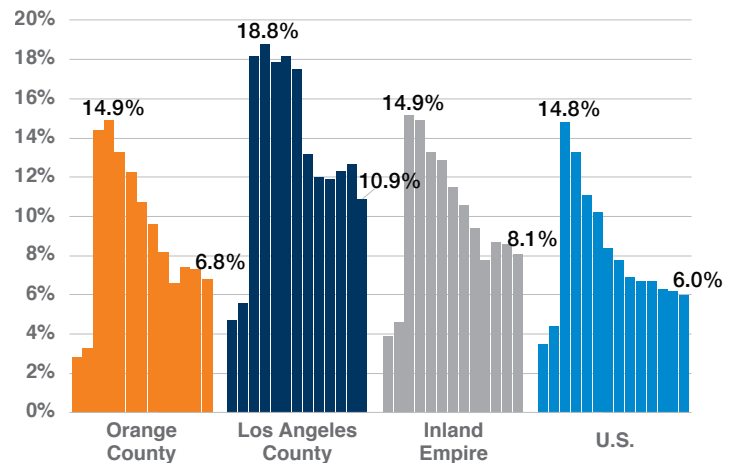
Labor Market – Overview

The pandemic dealt a once-in-a-century jolt to the Orange County economy, just as it heaped loss and devastation across the nation and the Southern California region. Governments responded to the spread of the disease in March 2020 by locking down businesses, schools and offices. The abrupt halt in economic activity took an immense toll, and its impact a year later is still ongoing.

Indeed, the price of controlling the disease has been astronomical in economic, financial and human terms, with wide socioeconomic disparities. Some of its effects will linger for years to come. The disruption of normal business and personal activities has led to new ways of interacting and a complete readjustment of supply chains. Some of these changes are likely to persist; others will likely dissipate once the pandemic is behind us. But even if only a fraction of the changes persist over time, these will have sizeable consequences for how business is conducted and physical resources are deployed. While these are generally global issues, they are equally relevant for us here in Orange County and in Southern California.

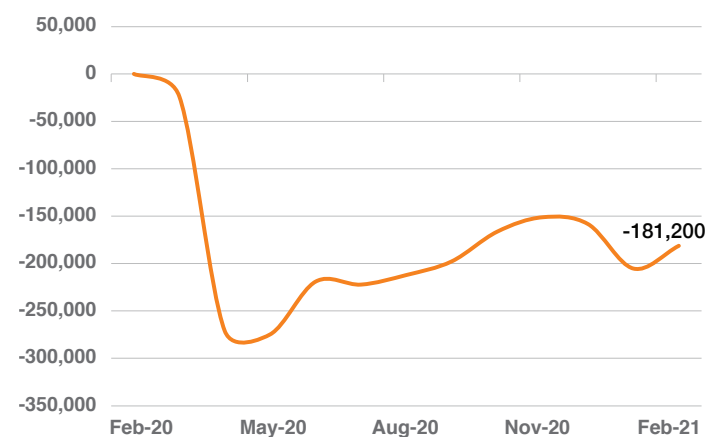
The impact of the pandemic on Orange County's labor market was swift and dramatic: In a span of three months (from March to May 2020), the county lost an astonishing 280,400 jobs. Based on the household survey, the unemployment rate jumped from 2.8% in February 2020 to 14.9% in May 2020. Los Angeles County lost 1.19 million jobs with the unemployment rate jumping from 4.7% to 18.8%, and the Inland Empire saw a job loss of 295,400 and unemployment rate rising from 3.9% to 14.9% during the same three-month period. All told, a jaw-dropping 1.83 million jobs disappeared from Southern California payrolls over this time, more than half of the 3.16 million lost at the state level. The unemployment rate for the six-county region had skyrocketed to 15.5% by May from a pre-pandemic low of 4.3%. Previous historical records were shattered, which underscores the outsized severity of the pandemic on the economy (Figure 12).

FIGURE 12
Unemployment Rates Across Counties Have Fallen,
But Are Still Elevated
(unemployment rate, percent)



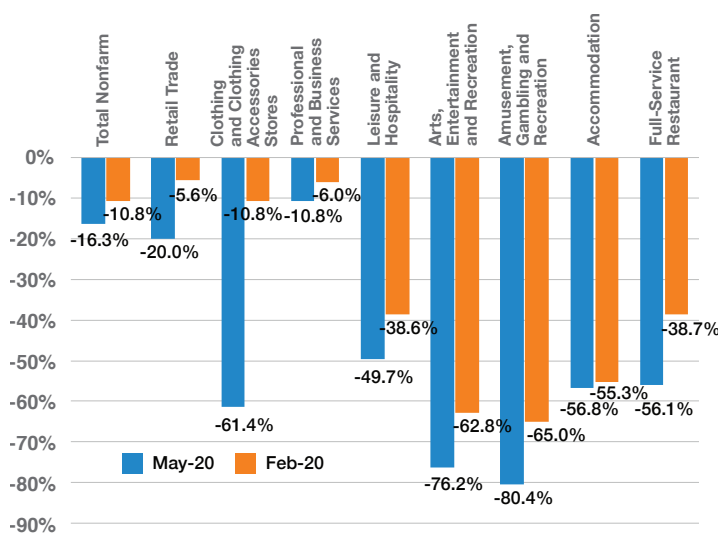
Payroll employment data, which is relatively more accurate and derives from a different survey than the household survey, showed a similar pattern. In Orange County, total payroll employment fell by 274,600 from March to May 2020 – a staggering 16.8% drop (Figure 13). Payroll job losses for Los Angeles County over the same period came to 728,000 (15.8% of total payroll jobs). Inland Empire's losses were 198,000 (12.5%), while the Southern California region as a whole suffered a drop of 1.25 million (15.1%). The state of California suffered a loss of 2.46 million, or a 14% decrease in its payroll jobs.

FIGURE 13
OC Labor Market: A Deep Loss and a Weak Recovery, So Far
(payroll job change, Feb. 2020- Feb. 2021)



Industries suffering the sharpest decline were those that relied on direct consumer spending such as leisure and hospitality and retail. The leisure and hospitality sector lost nearly half its jobs during the March-May 2020 period. Within that sector, arts and entertainment was down by 76.2%; amusement, gambling and recreation by 80.4%; accommodations by 56.8%; and full-service restaurants by 56.1% (Figure 14). In retail, clothing establishments were down 61.4% and sporting goods and hobby shops by 43.4%. Smaller losses, but not insignificant by any means, occurred in construction (-6.2%), manufacturing (-9.2%), professional and business services (-10.8%) and education (-22.8%). This general pattern was repeated in the Southern California region and indeed throughout the country.

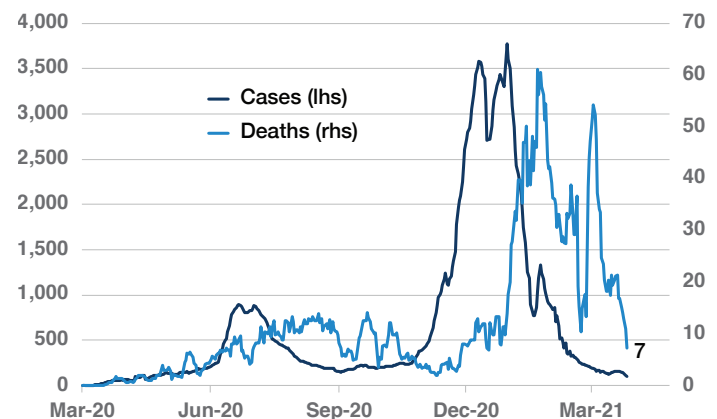
FIGURE 14
Sectors of Sorrow and Pain
(percent of job losses by sector, Feb. 2020 - Feb. 2021)



Since the first COVID infection was discovered in Orange County in January 2020 (the third such infection in the nation), public policy related to both the spread and the response to the disease has been marred by confusion caused by a lack of reliable data related to the pandemic and a dearth of experience on how to best address it. As a result, various policies, pronouncements and rules created several cycles of slowdowns followed by acceleration in the spread of the virus. For example, California declared a state of emergency on March 4, 2020, followed by a stay-at-home order on March 19, only to announce a plan for reopening on April 28. Cases throughout the state rose in June and July, abated somewhat in early fall and spiked to levels not seen before in December and January.

A number of communities, devastated by the economic collapse caused by strict lockdowns, resorted to defying some of the edicts issued by the state, with Orange County going as far as rescinding the face covering requirement on June 11. This lasted about one week, with the order being reinstated the following week (June 18). The state announced a new plan for reopening the economy based on a somewhat confusing tiered system on Aug. 31. As infections rose and deaths mounted, California proceeded with a second raft of business restrictions and lockdowns: The state imposed a curfew in selected regions on Nov. 19, followed by a new stay-at-home order on Dec. 3, which was lifted six weeks later, on Jan. 25. Since then, the four-tier county-level system for gradual re-opening has been in place. As of April 4, COVID-related deaths in the state stand at nearly 60,000, with Orange County's toll at 4,700 (Figure 15).

FIGURE 15
Orange County COVID-19 Cases and Deaths
(seven-day moving average)



The ebb and flow of the virus and the ever-changing and ill-defined defined government rules combined for a very tough business environment. The economic environment remained troublesome also partly because the general public was reluctant to venture out and visit stores and restaurants, even as these establishments were operating under strict capacity limitations, whenever they were allowed to operate. Only after mid-January, when infections began to abate in earnest and vaccines became more widely available, did the economy pick up some momentum.

Signs of this are everywhere. Overall civilian job losses for Orange County were 130,300 in February (latest available data) compared to pre-pandemic, a dramatic improvement over the 280,400 job losses recorded back in May 2020.

The unemployment rate has declined to 6.8% from a peak of 14.9%. For Los Angeles County, job losses stood at 403,100 in February (compared to 1.19 million in May 2020), and the unemployment rate improved to 10.9% (from 18.8% in May 2020). For the Inland Empire, job losses in February were 81,800 (compared to 295,400 in May 2020) with an unemployment rate of 8.1% (compared to 14.9% in May 2020). For Southern California the total civilian job loss was reduced to 644,300 (compared to 1.83 million in May 2020). The state's job losses stood at 1.25 million (compared to 3.16 million in May 2020) and an unemployment rate of 8.4% (compared to 15.5% in May 2020). While this is a dramatic turnaround from nine months ago, we are still far from recovering all the jobs lost due to the pandemic. In addition, many people have stopped looking for work, and the number of those who are underemployed remains high.

The other measure of employment, payroll jobs, provides a more granular look at the data, including industry-level details. Total payroll jobs in Orange County stood at 1.5 million in February 2021, compared to 1.68 million in February 2020, a loss of 181,200, or -10.8% (compared to the loss of 274,600 or -16.3% in May 2020). Therefore, from May 2020 to February 2021, Orange County has recovered over 93,000 jobs, an average of just over 9,000 jobs per month. This pace is roughly half of the normal job growth rate in the county.

As expected, not all sectors have improved at the same pace. Job losses in hard hit sectors, though improved, are still far below normal levels. For example, job losses in the leisure and hospitality sector currently stand at -38.6% compared to February 2020 (from -49.7% in May 2020), and there has not been any significant improvement in most of its subsectors. Employment in the restaurant sector is down -38.7% – an improvement compared to the -56.1% registered in May 2020 but nowhere near normal levels. In contrast, some sectors that were deeply affected early on by the pandemic have come around quite fast: Employment in clothing sales stands at -10.8% in February 2021 compared to -61.4% in May 2020; for sporting goods, gambling and recreation, the losses have been reduced to -13.2% from -43.4%. Employment in the professional and business service category, one of the largest employers in the county, is 6% below pre-pandemic levels, compared to -10.8% in May 2020. A full repair of Orange County's labor market is a daunting affair given that the economy needs to generate 181,000 jobs just to reach its pre-pandemic level. This is the work still ahead.

Disneyland plays a major role in the county's economy in not only providing the county name recognition from its location in Anaheim but also by contributing significantly to the local economy. A study by the Woods Center commissioned by Disneyland found that in 2018, Disneyland contributed \$8.5 billion to the Southern California economy and created over 78,000 jobs, both directly through its own workforce and through secondary impacts in the region.

Disneyland has been closed since March 13, 2020, for more than a year. It laid off many of its employees and its only revenue has come from limited opening of Downtown Disney, a retail space next to the park. While we do not have any direct data available from Disneyland, other than publicly available reports of the company, a back-of-the-envelope calculation shows that Disneyland's closure may have cost the Southern California economy approximately \$6.2 billion in output and 60,000 in jobs of which approximately 43,000 are in Orange County. These estimates are based on expected direct expenditures by Disneyland as well as secondary impacts of that spending on local hotels, restaurants and other businesses. This estimate, we want to emphasize, is only an approximation and could be significantly revised once reliable data are available.

As discussed in the national report, one defining feature of this recession and ensuing recovery is its unevenness: The impact of the pandemic has varied greatly by income, race, age, level of education and sex. Indeed, the unemployment insurance claims filed with the California Employment Development Department provide important clues on the unequal impact of the pandemic.

When comparing the number of claims filed in the last 12 months by age, race, sex and level of education to their population shares, it is obvious that the pain, at least in terms of job losses, skews towards younger, less educated and non-white workers. As shown in figures 16-18, individuals ages 24-34 filed more claims relative to their population share, indicating they were hit worse with job losses. Similarly, non-whites show larger employment losses, as well those with only a high school education.

Housing and Construction

FIGURE 16
The Young Feel the Pain: OC Unemployment
Claims are Higher for Younger Folks
(share of UI and share of population by age)

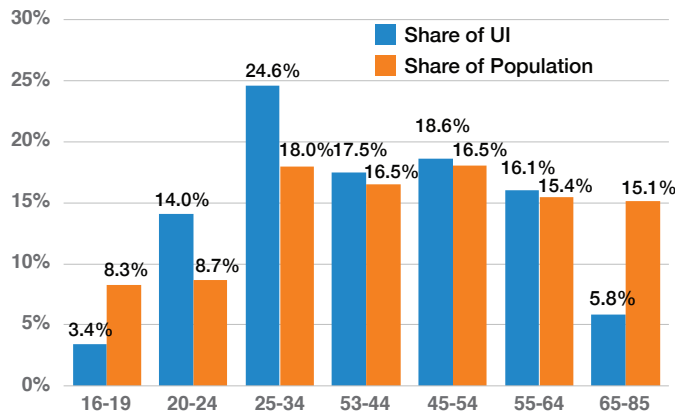


FIGURE 17
OC Unemployment Claims by Race
(share of UI and share of population by race)

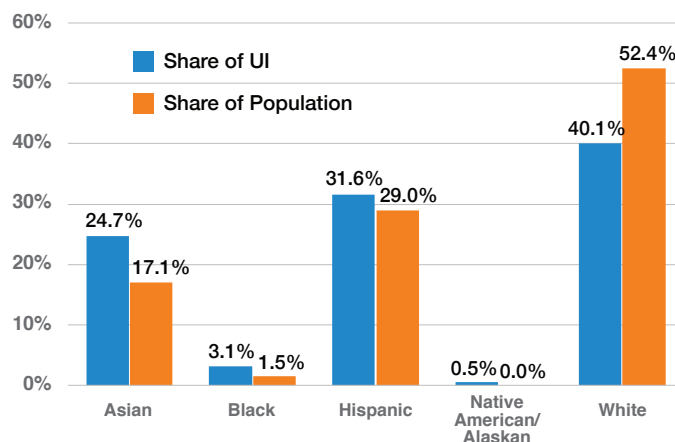
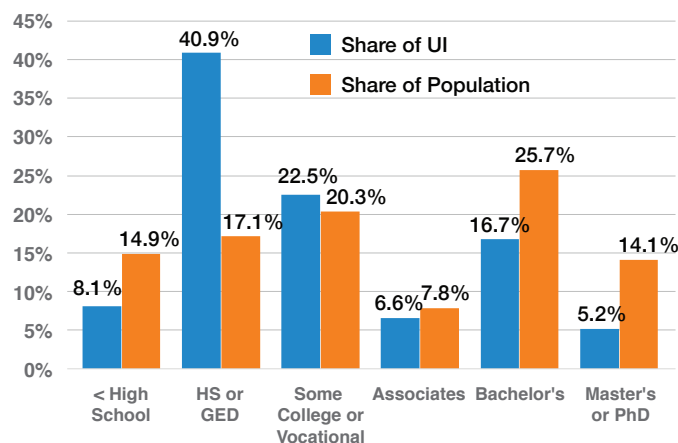
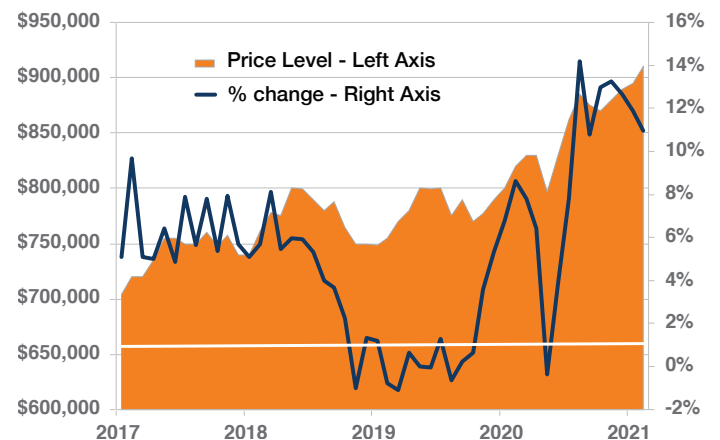


FIGURE 18
Orange County Unemployment Claims by Education
(share of UI and share of population by education)



During the pandemic, housing prices went through a rather unusual pattern. Orange County home price appreciation was modest during much of 2019, under 5%, but the median price began to rise in December 2019 with the pace firming up to 6 to 8 percent by April 2020. The shock of the pandemic closures reversed this trend, but only for a couple of months. Since August 2020, home prices have defied gravity, rising by double-digits. The annualized pace of increase, from August 2020 to February 2021, has been a remarkable 12.4% compared to the same seven-month stretch the year before. As of February 2021, the median single-family housing price in Orange County stood at an eye-popping \$910,000 (Figure 19).

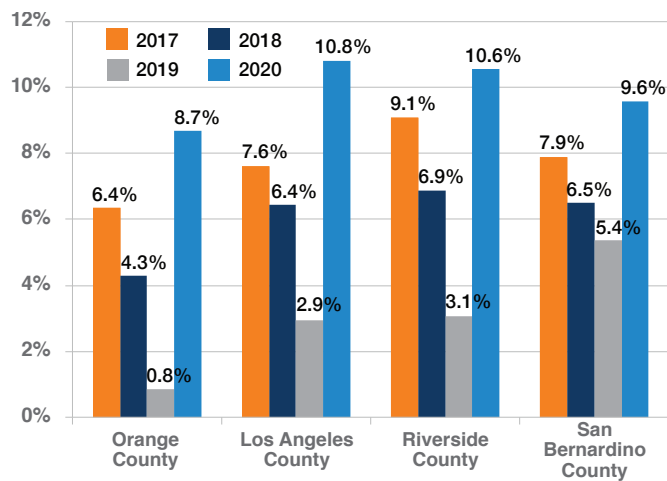
This pattern is not unique to Orange County: Throughout Southern California the housing market has had a banner year. In
FIGURE 19
Orange County Median Home Prices
(level and percent change)



Los Angeles County, the median single-family home price stood at \$770,000 in February 2021, rising by 16.9% in the previous seven months compared to a year earlier. Riverside County's median price was \$484,000 (a 17.5% increase compared to 2020), and San Bernardino County's median price was \$400,000, rising by an average annual pace of 15.5% compared to the previous year (Figure 20). The pace of appreciation has never been this high since 2012-2014, when a recovery in the housing market began in earnest after the Great Recession. The House Affordability Index published by the California Association of Realtors indicates that affordability for Orange County fell from 26% in the fourth quarter of 2019 to 22% in the fourth quarter of 2020.

Escalating home prices have occurred throughout the country.

FIGURE 20
Home Prices: A Cross-County Perspective
(year-over-year, percent change; annualized growth year-to-date in 2020)



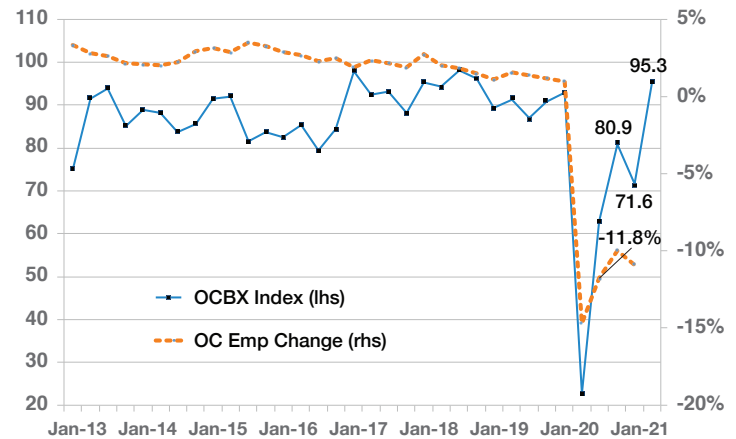
As discussed in the national report, this is largely due to rock-bottom mortgage rates, lack of sufficient supply and pandemic-induced stimulus payments to households. Nonetheless, this pace of appreciation is not sustainable indefinitely. Going forward, home prices will fundamentally depend on future mortgage rates, supply of housing and the state of the economy.

Business Expectations

The Orange County Business Expectations survey (OCBX), conducted by Cal State Fullerton's Woods Center for Economic Analysis and Forecasting, produces an index of local business sentiment. The overall value of the OCBX index is a weighted average of several survey questions, and it provides a measure of overall business expectations for Orange County. The index has proven accurate in predicting future job changes in Orange County. The latest survey, conducted at the end of March 2021, captures expectations of Orange County business executives for the second quarter 2021 and beyond. The numbers are heartwarming: The value of the index jumped to 95.3 compared to 71.6 in the previous quarter. This is a dramatic turnaround in sentiment: It is also the highest level since the fourth quarter of 2018 when the economy was humming along (Figure 21).

Business expectations for profits, sales and hiring were all higher

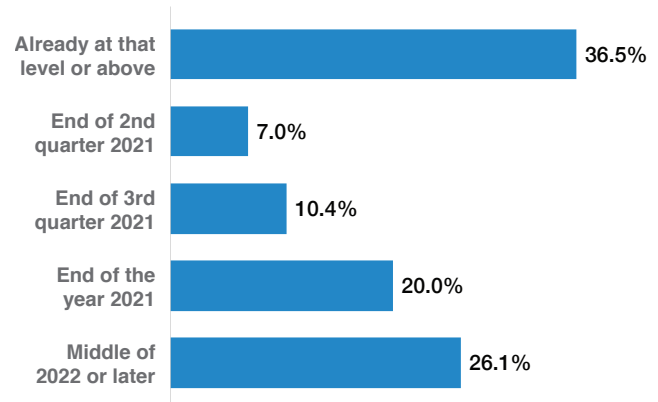
FIGURE 21
Orange County OCBX Index and Employment Change
(index level and employment year-over-year percent change)



though expected plans for future hiring were somewhat muted. When asked when their business will reach pre-pandemic levels, more than a third of business executives (36.5%, to be precise) said they were already at that point or even above. Almost three-quarters of Orange County businesses expect to reach pre-pandemic levels before the end of 2021 (Figure 22).

We asked two special questions during this survey. One dealt

FIGURE 22
When Will Your Business Reach Pre-Pandemic Levels?
(percent of OCBX respondents)

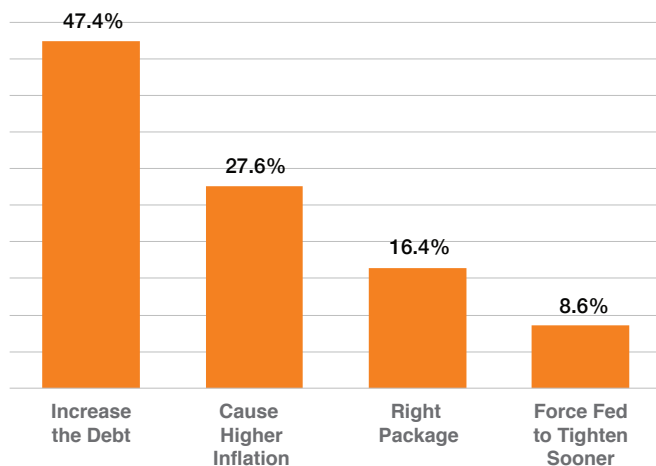


with the likely impact of the proposed increase of the federal minimum wage to \$15 per hour. 81.6% of the executives expected a less than 5% increase in their payroll costs, while only 4.4% expected a rise of 20% or higher. This is not surprising: In California, the \$15 minimum wage is expected to come into effect on January 2023, so businesses have been gearing up for

this. It is also true that given the high average income in Orange County and its educated workforce, a large share of the workers already makes more than \$15 an hour.

The second question addressed potential concerns with the American Rescue Plan, the \$1.9 trillion stimulus package passed in March 2021. 47.4% were worried that the plan would significantly increase the already large public debt while 27.6% worried about its possible inflationary impact (Figure 23). 16.4% thought that this was the right size plan, and 8.4% were concerned that it might require the Federal Reserve Bank to tighten monetary policy earlier than they would prefer.

FIGURE 23
Most Important Concern Regarding \$1.9 tn Plan
(percent of OCBX survey respondents)



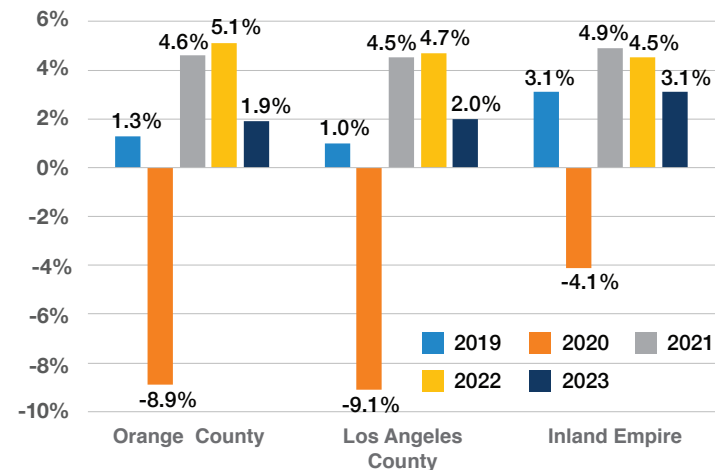
The overall outlook of Orange County business executives is very bullish and is buoyed by the increasing likelihood of the control of the virus, the re-opening of the economy and a record high stock market.

Forecasts

Having suffered a massive employment loss during March-May 2020, Orange County's economy has recovered over 90,000 jobs by February 2021 but it is still over 180,000 jobs below its pre-pandemic level. Its unemployment rate has also improved to 6.8% in February 2021 from a high of 14.9% in May 2020. Overall unemployment insurance claims for Orange County, which shot up from a pre-pandemic average of about 2,000 per week in February 2020 to 90,000 during the first week of May, have been on a downward trend. Currently, the weekly totals are just over 10,000 which is still five times the pre-pandemic levels.

The sharp bounce back that we expect will add over 69,500 payroll jobs in 2021 to the county's economy for an annualized growth of 4.6% and lower the unemployment rate to 4.9%. On a year-over-year basis the monthly gains will be larger. In fact, from January -December 2021, we estimate the county will add more than 85,000 jobs. Employment in many industries, especially in the leisure and hospitality sector, will achieve pre-pandemic levels towards the end of 2021 or early 2022, though most other sectors would fully recover only in mid- or late 2022. Similar improvements are expected for other Southern California counties and these payroll employment forecasts are shown in Figure 24.

FIGURE 24
Southern California Payroll Employment Forecasts



As discussed previously, the sizzling housing price increases are unsustainable and will moderate as mortgage rates rise. However, in the short run the housing supply will be slow to respond. Given Orange County's sky-rocketing increases during the last ten months, we expect the median price growth to moderate to an annual rate of between 5% and 7% during 2021 and 2022.

In conclusion, echoing the sentiment expressed in our national report, as the pandemic threat recedes, the country and Orange County appear ready to bounce back with a bang.